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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/804,374

03/19/2004

Hang-Dony Kuan

TI-36952

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11/07/2005

TEXAS INSTRUMENTS INCORPORATED

P O BOX 655474, M/S 3999

DALLAS, TX 75265

EXAMINER

VAZQUEZ, ARLEEN M

ART UNIT

PAPER NUMBER

2829

DATE MAILED: 11/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/804,374

Applicant(s)

KUAN ET AL.

Examiner

Arleen M. Vazquez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 1-5,9,15-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-8,10-14 and 17-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/19/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's election without traverse of Claims 6-8, 10-14 and 17-19, Group I, Species of Figs. 1-2 in the reply filed on October 24, 2005 is acknowledged.

2. Claims 1-5, 9, 15-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 24, 2005.

Specification

3. The abstract of the disclosure is objected to because legal phraseology such as "the invention" is used. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by ***Song et al.*** (**US 6,856,154**).

As to claim 6, ***Song et al.*** disclose in Figs. 4 and 5 a system for testing a singulated semiconductor device (DUT) comprising a socket (410) for receiving a DUT

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(interpose between probes 313 and board 400), the socket having pins (411) with ends for making electrical contact with the DUT and opposing ends for making contact with a test board; a test board (320) adjoining the socket (410), the test board having pin receptacles (located in the surface of test board 320) for receiving the opposing ends of the pins (340) and measuring (350) the test board pin receptacles for measuring electrical signals in the DUT.

6. Claim 17 is rejected under 35 U.S.C. 102(e) as being anticipated by *Ito et al.* (US 6,724,213).

As to claim 17, *Ito et al.* disclose in Fig. 1 a semiconductor device (4) comprising a plurality of contact surfaces (end portion of 10) and a probe receptacle (10) situated on each of a plurality of the contact surfaces.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 7-8,10-14 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Song et al.* (US 6,856,154) in further view of *Ito et al.* (US 6,724,213).

As to claims 7,8,13 and 14, **Song et al.** disclose everything above except a basin with conical shape for receiving the pin. However, **Ito et al.** disclose in Fig. 1 a conical basin (upper portion of 10) for receiving the pin.

It would be obvious to one of the ordinary skill in the art at the time the invention was made to modify **Song et al.** by using conical shapes of the receptacles as taught by **Ito et al.** for having a better contact with the pin.

As to claims 10 and 11, it appears that the basins are made by specific method steps such as etching and drilling and these steps are not given patentable weight.

As to claim 12, **Song et al.** disclose in Figs. 4 and 5 a test board (320) for use in association with semiconductor device automatic test equipment (350) and a socket (410), the socket having pins (411) and adapted for receiving a DUT (interpose between probes 313 and board 400), the test board comprising a contact area (lower surface of board 320) for operably coupling a pin of the ATE (350). **Song et al.** fails to disclose a pin receptacle in the contact area for receiving a pin, for thereby making staunch electrical contact between the pin and a contact point. However, **Ito et al.** disclose in Fig. 1 a pin receptacle (10) on the contact area (4) for receiving a pin, for thereby making staunch electrical contact between the pin and a contact point.

It would be obvious to one of the ordinary skill in the art at the time the invention was made to modify **Song et al.** by having a pin receptacle (10) on the contact area (4) for receiving a pin as taught by **Ito et al.** for making electrical contact between the pin and the ATE to carry the testing.


As to claims 18 and 19, it appears that the basins are made by specific method steps such as depositing and etching and these steps are not given patentable weight.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arleen M. Vazquez whose telephone number is 571-272-2619. The examiner can normally be reached on Monday to Friday, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 571-272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AMV


VINH NGUYEN
PRIMARY EXAMINER
A.U. 2829
11/02/05